CONTENTS

Fire and Explosion

Preventing fires

The following actions should be taken to minimize the risk of fire:

- Do a visual inspection before operating the machine to check for any risk of fire.
- Do not operate the machine if there is a risk of fire.
- Be sure to identify the primary exit and alternative exit of the machine, and fully understand how to use the exits in the event of a fire.
- Do not perform any welding or drilling work on the engine cover.
- Keep the engine compartment free from the build-up of flammable materials such as dead leaves, small branches, paper, and other types of trash.
- Keep the covers of the major parts of the machine closed. Make sure that the covers operate normally in order to be able to use firefighting equipment in the event of a fire.

- Be careful when handling fuel. Fuel is a highly flammable.
- Always stop the engine when refueling the machine.
- Refuel outdoors.
- Remove any build-up of flammable materials from the machine.
- Do not operate the machine near a flame.

- All fuels and most lubricant and coolant mixtures are flammable materials, so special care should be exercised when handling such materials to prevent fire and explosion.
- Keep all fuels and lubricant in adequate containers.
- Never smoke in the area where refueling is taking place or in the space for handling battery electrolytes and other flammable materials.
- Oil leaked to a hot surface or electronic component may cause a fire.
- Do not operate the machine if there is an oil leak. Repair the source of the oil leak, and wipe clean any leaked oil before operating the machine.
- Always clean all electrical lines, connectors, and clamps, and check whether they are securely connected on a regular basis.
- If any electrical wire or connector is loose or damaged, repair it immediately.

- Do not weld, cut or use a cutting torch through any tubes or lines in which flammable flows. Check all tubes and lines for signs of abrasion or deterioration and replace if damaged.
- Dust or particles generated when repairing the non-metallic hood or fender are flammable or explosive. Repair such parts in a well ventilated area well away from flames or sparks, and be sure to wear suitable PPE (Personal Protective Equipment).

Instructions on mitigating vibration

Machines should be correctly adjusted and maintained to ensure smooth operation. The terrain conditions should be observed. The following instructions will help reduce the whole body vibration level:

① Use the correct size attachments for your machine.

② Maintain the machines pursuant to the manufacturer's recommendations.

③ Maintain and provide good terrain conditions.

- Remove any large rocks or obstacles.
- Fill gutters or holes.
- Adjust speed and driving path as needed for the conditions.

④ Use a driver's seat that satisfies ISO 7096.

- Adjust the driver's seat and suspension for the weight and the size of the operator.
- Inspect the suspension and adjusting devices of the driver's seat.

⑤ Perform the following maneuvers without using excessive force :

- Steering
- Braking
- Accelerating
- Gear shifting

⑥ Move the attachments smoothly.

⑦ Keep the level of vibration minimal when working for a long time or driving for a long distance.

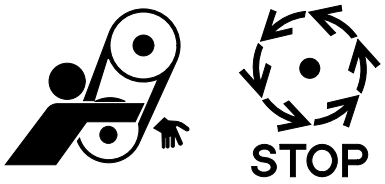
- Use a machine mounted with suspension system.
- Transport the machine when moving between worksites; do not drive the machine to get to another worksite.

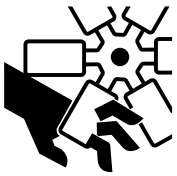
⑨ Take the following actions for optimal operator comfort and convenience:

- Adjust the driver's seat adjustment device to allow a convenient posture.
- Adjust the angles of the mirrors to minimize awkward, compromised posture
- Avoid working for an excessively long time, and take regular breaks.
- Do not jump on or off the cabin.
- Minimize repeated handling of loads and lifting of loads.
- The vibration information and calculation procedures are based on <ISO/TR 25398> has been defined according to the emission of vibrations measured under the actual working conditions of the machines.

Collision or cutting

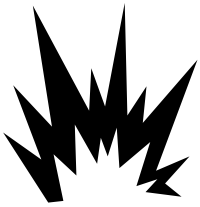
- Never perform a maintenance while the engine is running.
- Never open or remove the engine hood while the machine is in operation.
- If an inspection is required while the engine is running, two or more workers must perform the inspection.
- Keep areas in the vicinity of rotating or moving parts clean.
- Keep articles in the vicinity of the fan clean.
  - Wear safety gloves when handling the wire cables.
  - Wear protective goggles and protective clothes





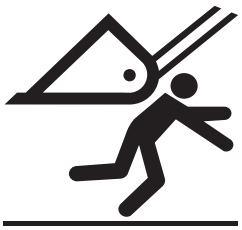
Preventing fire and explosion

- Use caution when handling fuels, lubrication oils, and coolant mixtures to prevent fire and explosion. Failure to comply may result in serious injury or death.
- Oil that leaks on to a hot surface or electronic components may cause a fire.
- Keep all fuels and lubrication oils in adequate containers.
- Do not smoke while refueling or while adding any fluids to the machine. Do not smoke near the fuel tank at anytime.
- Do not smoke in a space where battery electrolyte and other flammable materials are handled.
- Always keep all electrical lines, connectors, and clamps clean, and check whether they are securely connected on a regular basis.
- If any electrical wire or connector is loose or damaged, repair it immediately.
- Do not weld or cut with gas cutter pipes or tubes that contains flammable fluids.



Cautions on decoupling the attachments

- Do not allow unauthorized workers to access the machine.
- Place the machine in a safe position.
- Install safety fences around the machine.

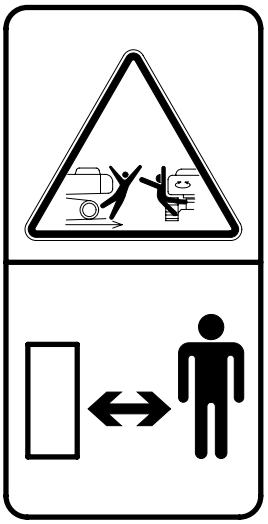


11) KEEP CLEAR-SIDE (item 13)

This warning label is positioned on the LH rear side cover and RH side cover.

⚠ To prevent serious personal injury or death keep clear of machine swing radius.

⚠ Do not deface or remove this label from the machine.



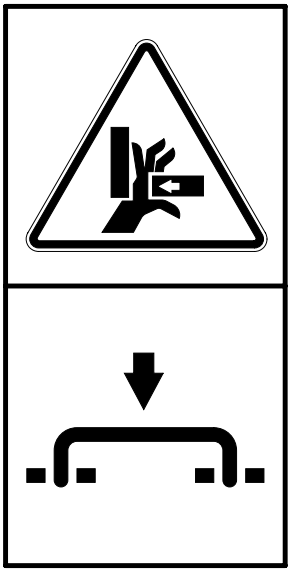
21070FW13

12) STAY FIX (item 14)

This warning label is positioned on the LH and RH side cover and LH rear side cover.

⚠ Be sure to support the stay when the door needs to be opened.

⚠ Be careful that the opened door may be closed by the external or natural force like strong wind.



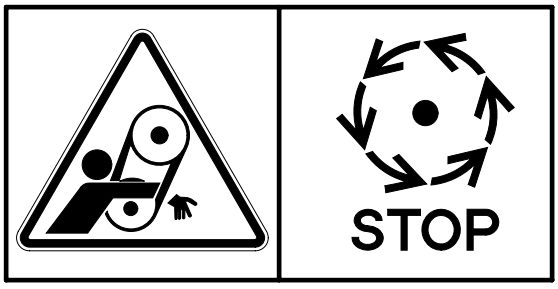
21070FW14

13) ENGINE HOOD SHEARING (item 15)

This warning label is positioned on the engine hood.

⚠ Don't open the engine hood during the engine's running. Stay clear of rotating parts.

⚠ Don't touch exhaust pipe or it may cause severe burn.



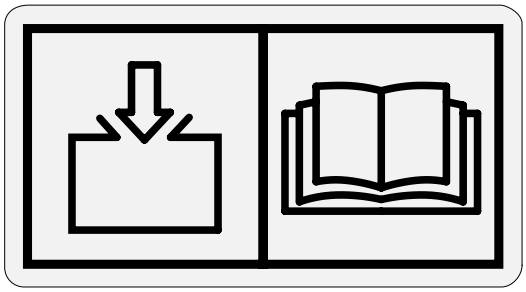
21070FW15

39) **SURGE TANK** (item 54)

This warning label is positioned on the top frame of the radiator.

This system must be filled slowly to prevent air locks.

※ **Fill rate ≤ 11 lpm**



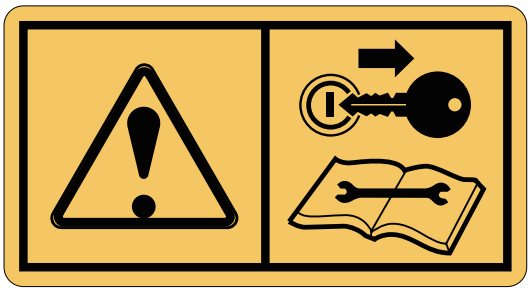
3009A0FW54

40) **KEY OFF CAUTION** (item 55)

This warning label is positioned on the right side window of the cab.

※ **Park on a flat place and stop the engine for inspecting and repairing. Properly TAG machine is not operational. (remove start key)**

Extreme care shall be taken during maintenance work.



290F0FW05

41) **RCV LEVER** (item 56)

This warning label is positioned on the right side window of the cab.

※ **When you work by moving the seat to the front of cab, it is possible to take place interference between cluster and RCV lever at specific position.**

To prevent this interference, handle below works.

(1) Rotate cluster.

(2) Adjust seat position for up-and-downward using seat height adjuster knob in suspension.

(3) Lower the console box height using knob between RH console box and seat cushion.

(4) Push back console and seat position using seat and console box adjust knob between LH console box and seat cushion.

290F0FW04

(6) Monitoring system

Information of machine performance as monitored by the MCU can be displayed on the LCD. Refer to the page 3-22.

(7) Self diagnostic system

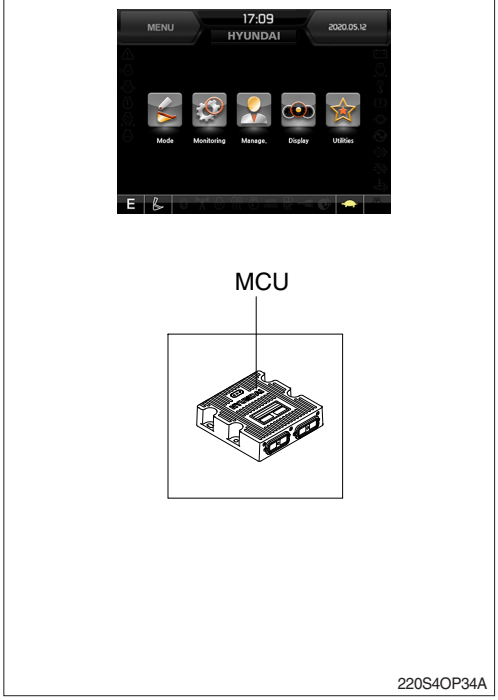
① **MCU (Machine Control Unit)**

The MCU diagnoses machine status and problems and displays fault code in the cluster (fault code detected by MCU is composed of HCESPN and FMI).

※ **Refer to the page 3-22 for LCD display.**

(8) Anti-restart system

The system protects the starter from inadvertent restarting after the engine is already operational.



2) HOW TO OPERATE MODE SELECTION SYSTEM

(1) When start key switch is turned ON

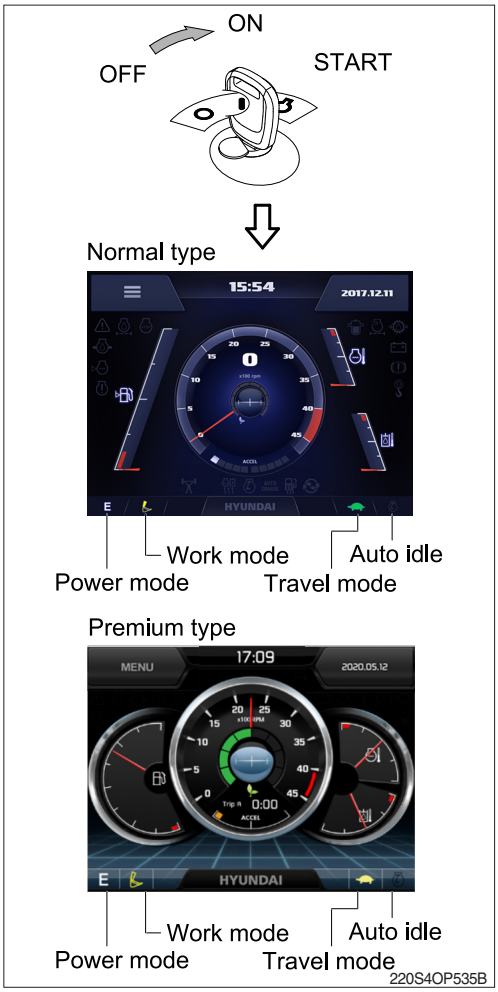
① When start key switch is turned on, the cluster turns on and buzzer sounds for 4 seconds. And then main information as gauges and engine speed are displayed on LCD.

② Initial default mode settings are displayed in the cluster.

Mode		Status
Power mode	E	ON
Work mode		ON
Travel mode	Low ( )	ON
Auto idle		ON

※ **These setting can be changed at U mode.**

③ Self-diagnostic function can be carried out from this point.



13) BUCKET WITH HOOK

When carrying out lifting work, the special lifting hook is necessary.

The following operations are prohibited.

- Lifting loads with a wire rope fitted around the bucket teeth.
- Lifting loads with the wire rope wrapped directly around the boom or arm.

When performing lifting operation, securely hook the wire rope onto the special lifting hook.

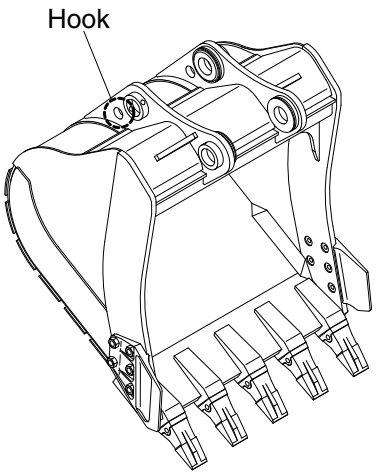
When performing lifting operation, never raise or lower a person.

Due to the possible danger of the load falling or of collision with the load, no persons shall be allowed in the working area.

Before performing lifting operation, designate an operation supervisor.
Always execute operation according to his instructions.

- Execute operating methods and procedures under his direction.
- Select a person responsible for signaling. Operate only on signals given by such person.

Never leave the operator's seat while lifting a load.



290F4OP42

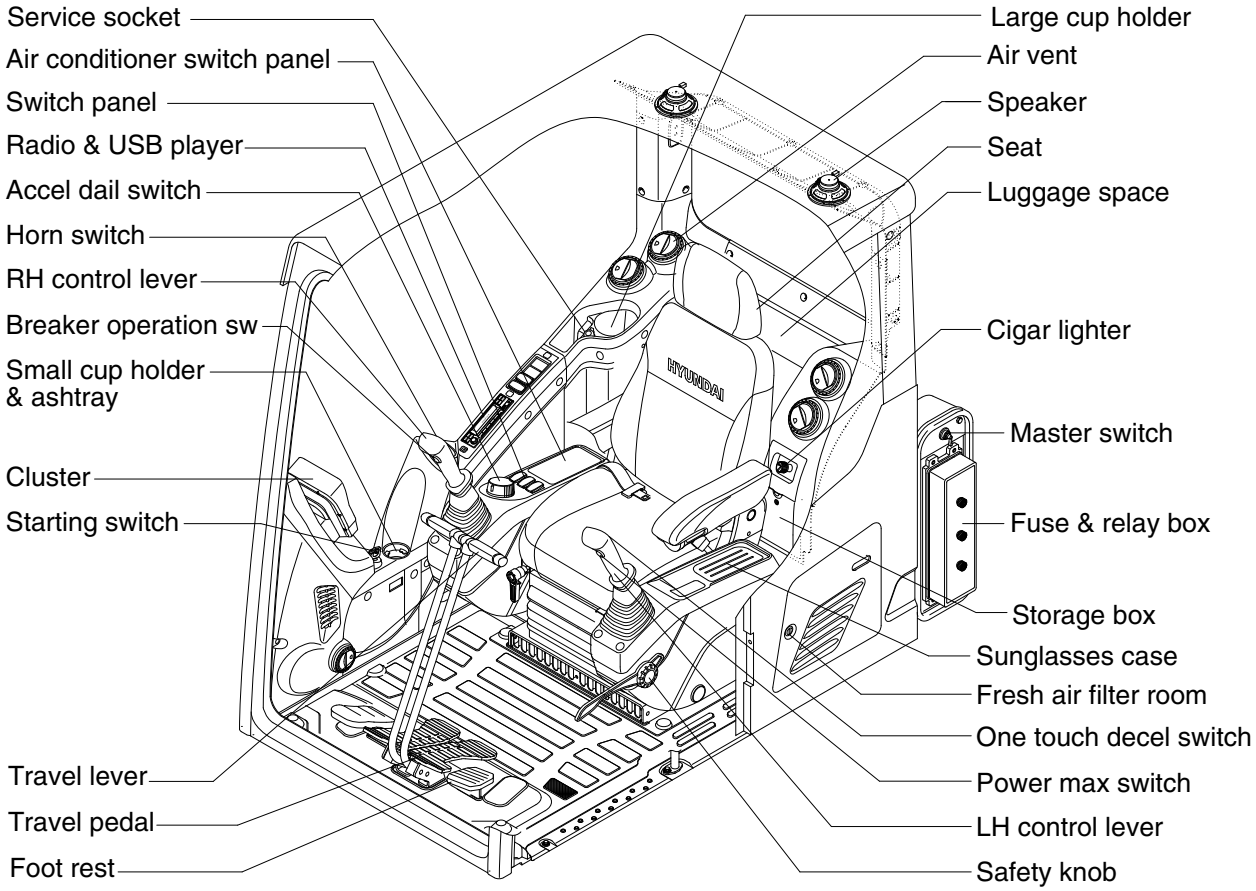
1. CAB DEVICES

1) The ergonomically designed console box and suspension type seat provide the operator with comfort.

2) ELECTRONIC MONITOR SYSTEM

(1) The centralized electronic monitor system allows the status and conditions of the machine to be monitored at a glance.

(2) It is equipped with a safety warning system for early detection of machine malfunction.

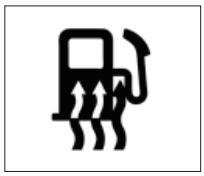


220S3CD31

(4) Decel pilot lamp

One touch decel is not available when the auto idle pilot lamp is turned ON.
Refer to page 3-36.

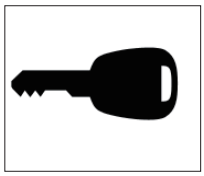
(5) Fuel warmer pilot lamp



(6) Maintenance pilot lamp

Refer to page 3-24.

(7) Smart key pilot lamp (premium type opt)



Refer to page 3-25.

(8) Auto engine shutdown pilot lamp (premium type, opt)

① This lamp is turned ON when the auto engine shutdown is activated

※ **Refer to page 3-21.**

⑥ Automatic engine shutdown (option)

220S3CD91A

220S3CD92A

220S3CD93A

· The automatic engine shutdown function can be set by this menu.
  - One time
  - Always
  - Disable
  - Wait time setting : Max 40 minutes, min 2 minutes

⑦ Initial mode

220S3CD122A

220S3CD119A

· **Key on initial mode**
  - Selected the power mode is activated when the engine is started.

Key on initial work mode
  - Not installed
  - Last setting
  - Work mode

⑧ Emergency mode

220S3CD248A

220S3CD249A

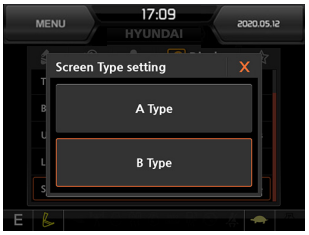
· This mode can be used when the switches are abnormal on the cluster.
· The cluster switches will be selected by touched each icon.

⑥ Screen type (premium type)

220S3CD165A

A Type (Default) 220S3CD166A

220S3CD156A



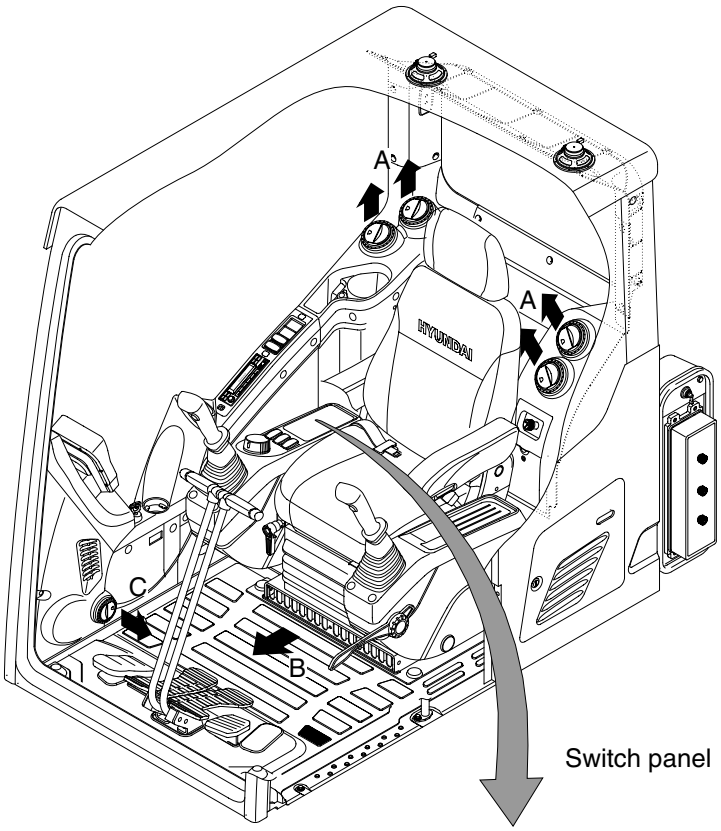
B Type (Option) 220S3CD174A

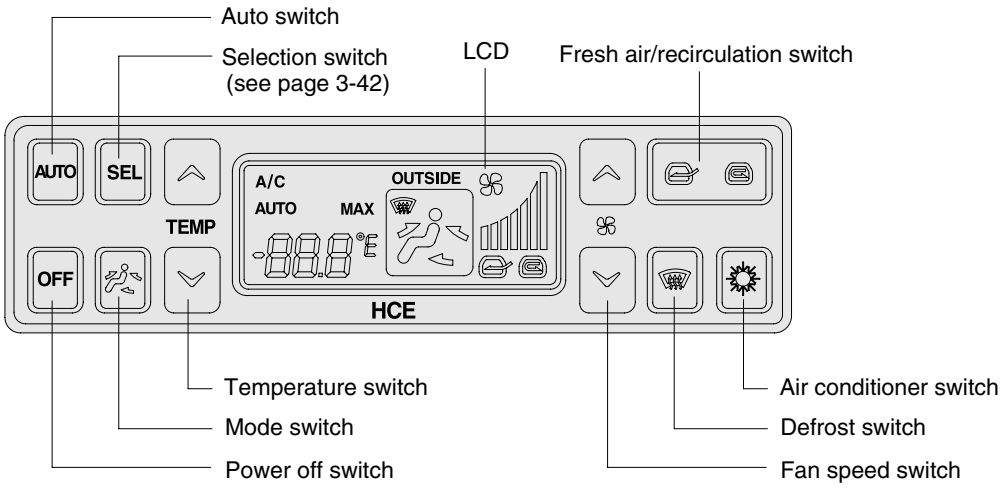
220S3CD167A

5. AIR CONDITIONER AND HEATER

Full auto air conditioner and heater system automatically keeps the optimum condition in accordance with operator's temperature configuration sensing ambient and cabin inside temperature.

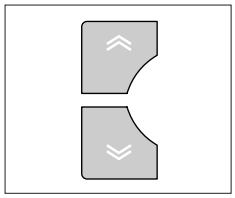
· **Location of air flow ducts**





220S3CD49

(3) File selection & cue / review button



290F3CD43

① **File selection function**

This button is used to select file up / down.

Each time the forward file select ⩓ is pressed, file number is increased.

Each time the backward file select ⩔ is pressed, file number is decreased.

② **Cue / review functions**

High-speed audible search of file on a USB can be made by this button (the cue and review functions).

Press and hold the cue button ⩓ to advance rapidly in the forward direction or the review button ⩔ to advance rapidly in the backward direction.

(4) MP3 directory / file searching

① The D-, D+ button is used to select a particular directory and file.

Press and hold for more than 3 seconds while playing MP3 file.

Turn right / left the selection knob to search the directory. Press the button when you find the wanted directory.

For example, the directory search generally changes in two methods depending on the order of writing as follows.

· Method 1 : ROOT→ Dir01→ Dir02→ Dir03→ Dir04→ Dir05→ Dir06→ Dir07→ ROOT

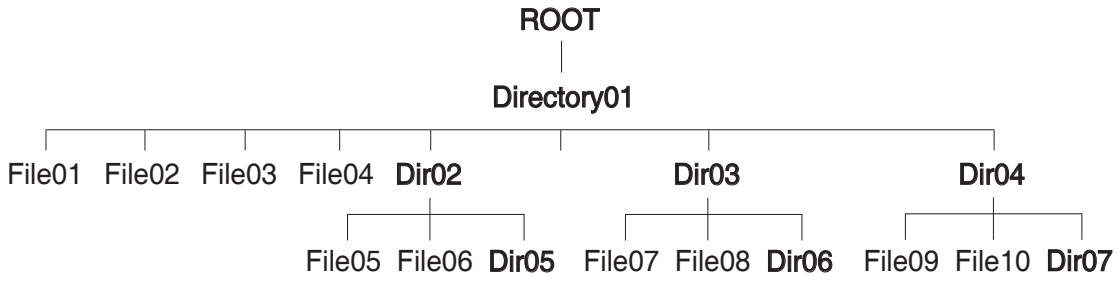
· Method 2 : ROOT→ Dir01→ Dir02→ Dir05→ Dir03→ Dir06→ Dir04→ Dir07→ ROOT

If you want to search the file in the located directory, turn right / left the selection knob consecutively. Press the button when you find the wanted file. The unit will then play the selected file.

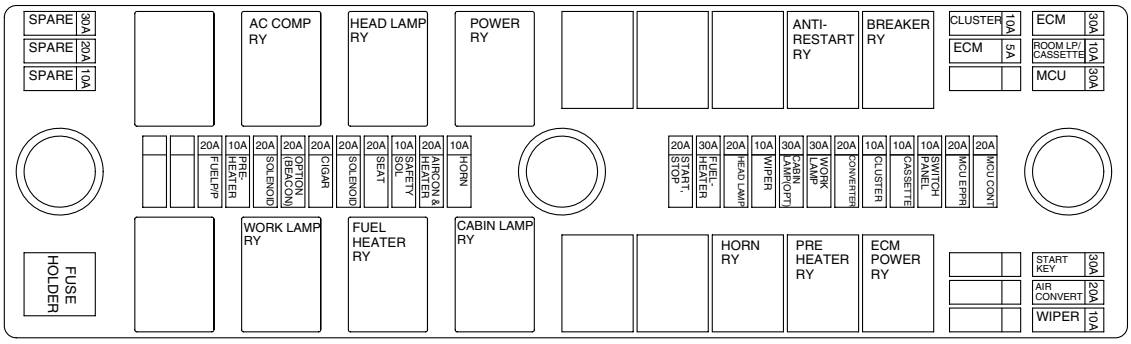
For instance, the file search changes in Dir01 as follows.

File01 → File02 → File03 → File04 → File01

※ MP3 directory / file configuration



4) FUSE & RELAY BOX



220S3CD225

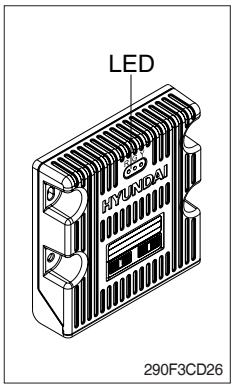
(1) The fuses protect the electrical parts and wiring from burning out.

(2) The fuse box cover indicates the capacity of each fuse and circuit it protects.

※ **Replace a fuse with another of the same capacity.**

⚠ **Before replacing a fuse, be sure to turn OFF the starting switch.**

5) MCU



(1) To match the pump absorption torque with the engine torque, MCU varies EPPR valve output pressure, which control pump discharge amount whenever feedbacked engine speed drops under the reference rpm of each mode set.

(2) Three LED lamps on the MCU display as below.

LED lamp	Trouble	Service
G is turned ON	Normal	-
G and R are turned ON	Trouble on MCU	· Change the MCU
G and Y are turned ON	Trouble on serial communication line	· Check if serial communication lines between controller and cluster are disconnected
Three LED are turned OFF	Trouble on MCU power	· Check if the input power wire (24 V, GND) of controller is disconnected · Check the fuse

G : green, R : red, Y : yellow

5) TIGHTENING TORQUE OF MAJOR COMPONENT

No.	Descriptions		Bolt size	Torque	
				kgf · m	lbf · ft
1	Engine	Engine mounting bolt (engine-bracket)	M12 × 1.75	11.5 ± 1.0	83.2 ± 7.2
2		Engine mounting bolt (bracket-frame, FR)	M20 × 2.5	52.1 ± 5.0	377 ± 36.2
3		Engine mounting bolt (bracket-frame, RR)	M24 × 3.0	90 ± 9.0	651 ± 65.1
4		Radiator mounting bolt	M16 × 2.0	29.7 ± 4.5	215 ± 32.5
5		Coupling mounting socket bolt	M18 × 2.5	46.5 ±2.5	336 ±18.1
6		Fuel tank mounting bolt	M20 × 2.5	57.8 ± 5.8	418 ± 42.0
7	Hydraulic system	Main pump housing mounting bolt	M10 × 1.5	6.5 ± 0.7	47 ± 5.1
8		Main pump mounting socket bolt	M20 × 2.5	57.9 ± 8.7	419 ± 62.9
9		Main control valve mounting nut	M12 × 1.75	12.3 ± 1.3	89.0 ± 9.4
10		Hydraulic oil tank mounting bolt	M20 × 2.5	57.8 ± 5.8	418 ± 42.0
11		Turning joint mounting bolt, nut	M12 × 1.75	12.3 ± 1.3	89.0 ± 9.4
12	Power train system	Swing motor mounting bolt	M20 × 2.5	57.9 ± 5.8	419 ± 42
13		Swing bearing upper part mounting bolt	M22 × 2.5	77.4 ± 8.0	560 ± 57.9
14		Swing bearing lower part mounting bolt	M24 × 3.0	100 ± 10	723 ± 72.3
15		Travel motor mounting bolt	M24 × 3.0	84 ± 8.0	608 ± 57.9
16		Travel motor mounting bolt (HW)	M20 × 2.5	57.9 ± 6.0	419 ± 43.4
17		Sprocket mounting bolt	M20 × 2.5	57.9 ± 6.0	419 ± 43.4
18	Under carriage	Upper roller mounting bolt, nut	M16 × 2.0	29.7 ± 3.0	215 ± 21.7
19		Upper roller mounting bolt, nut-H/W	M20 × 2.5	57.9 ± 6.0	419 ± 43.4
20		Lower roller mounting bolt	M20 × 2.5	57.9 ± 6.0	419 ± 43.4
21		Track tension cylinder mounting bolt	M16 × 2.0	29.7 ± 4.5	215 ± 32.5
22		Track shoe mounting bolt, nut	M22 × 1.5	78 ± 8.0	564 ± 57.9
23		Track guard mounting bolt	M20 × 2.5	57.9 ± 8.7	419 ± 62.9
24	Others	Counterweight mounting bolt	M36 × 3.0	337 ± 33	2440 ± 239
25		Cab mounting bolt	M12 × 1.75	12.8 ± 3.0	92.6 ± 21.7
26		Operator's seat mounting bolt	M 8 × 1.25	4.05 ± 0.8	29.3 ± 5.8
27		Under cover mounting bolt	M12 × 1.75	12.8 ± 3.0	92.6 ± 21.7

※ For tightening torque of engine and hydraulic components, see engine maintenance guide and service manual.

1) CHECK ENGINE OIL LEVEL

Check the oil level with the machine on a flat ground before starting engine.

(1) Pull out the dipstick and wipe with a clean cloth.

(2) Check the oil level by inserting the dipstick completely into the hole and pulling out again.

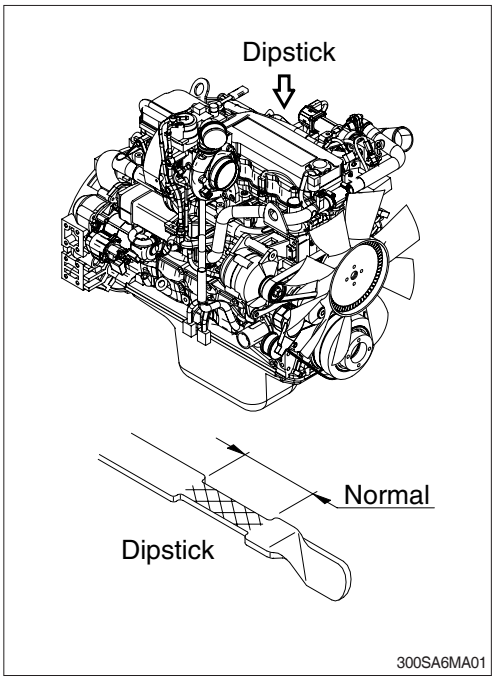
(3) If oil level is LOW, add oil and then check again.

※ **If the oil is contaminated or diluted, change the oil regardless of the regular change interval.**

※ **Check oil level after engine has been stopped for 15 minutes.**

⚠ **Do not operate unless the oil level is in the normal range.**

※ **Keep all parts clean from contaminants. Contaminants may cause rapid wear and shortened component life.**



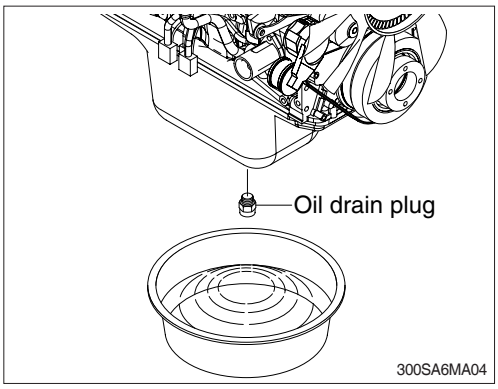
2) REPLACEMENT OF ENGINE OIL AND OIL FILTER

(1) Operate the engine until the coolant temperature reaches 60˚C (140˚F). Shut off the engine.

(2) Remove the oil drain plug. Drain the oil immediately to be sure all the oil and suspended contaminants are removed from the engine.

※ **A drain pan with a capacity of 24 liters (6.3 U.S. gallons) will be adequate.**

※ **Disposal of the waste oil in accordance with local regulations.be adequate.**

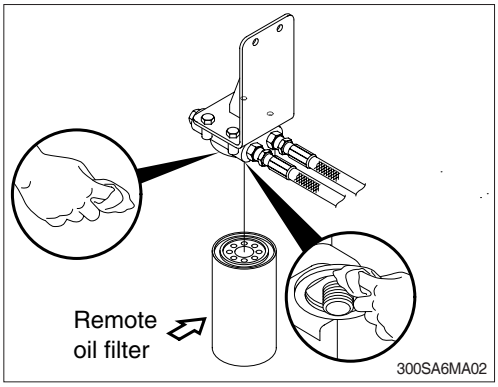


(3) Clean the area around the lubricating oil filter head.

(4) Use oil filter wrench to remove the oil filter.

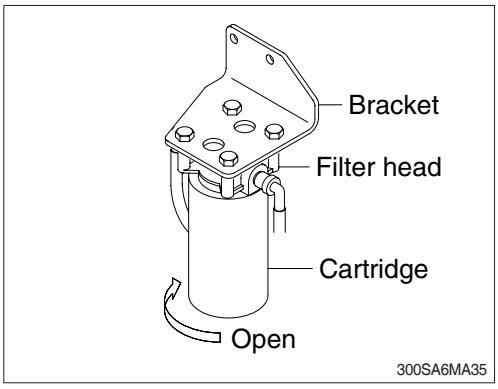
(5) Clean the gasket surface of oil filter head.

※ **The O-ring can stick on the filter head. Be sure it is removed before installing the new filter.**



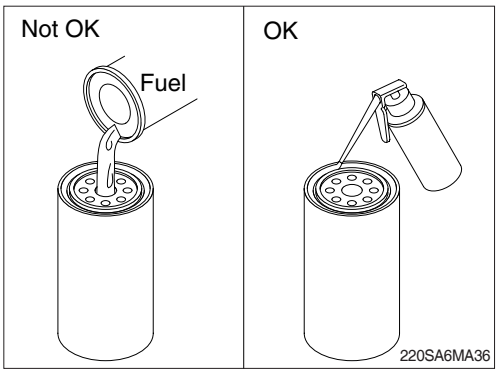
14) REPLACEMENT OF FUEL FILTER

(1) Clean the area around the filter head, remove the filter with a fuel filter wrench and clean the O-ring surface.



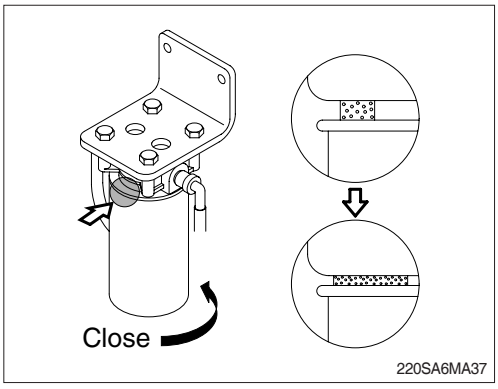
(2) Lubricate the O-ring of fuel filter with clean engine oil.

※ **Do not pre-fill fuel in the new fuel filter.**
The system must be primed after the fuel filter is installed. Pre-filling the fuel filter can result in debris entering the fuel system and anmaging fuel system components.



(3) Install the filter on the filter head.

※ **Tighten the filter until the gasket contacts the filter head surface and tighten the filter an additional 3/4 turn more after contacts the filter head.**



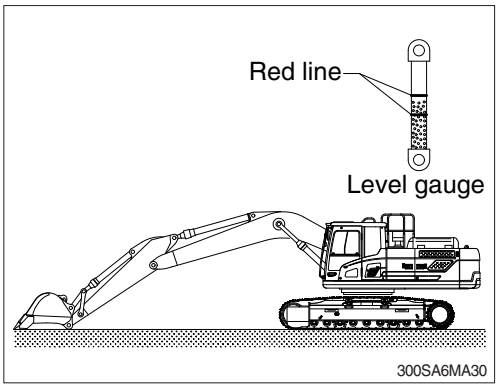
21) HYDRAULIC OIL CHECK

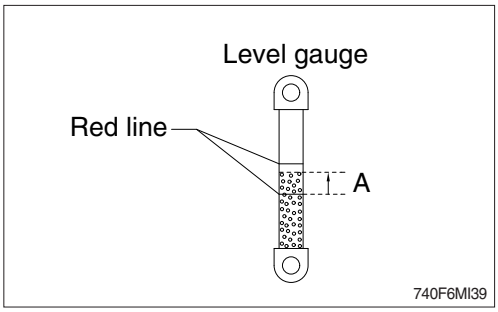
(1) Position the machine as shown in the illustration on the right. Then stop engine.

(2) Check the oil level at the level gauge of hydraulic oil tank.

(3) The oil level is normal if the oil is between the red lines. The oil level depends on the temperature of the hydraulic oil. Refer to the height (A) in the below table to check the level gauge.

Temperature		Height A	
℃	°F	mm	inch
0	32	15	0.6
10	50	25	1.0
20	68	30	1.2
30	86	35	1.4
40	104	40	1.6





※ Refer to page 3-22 for checking the temperature of the hydraulic oil.

※ Add the hydraulic oil, if necessary.

22) FILLING HYDRAULIC OIL

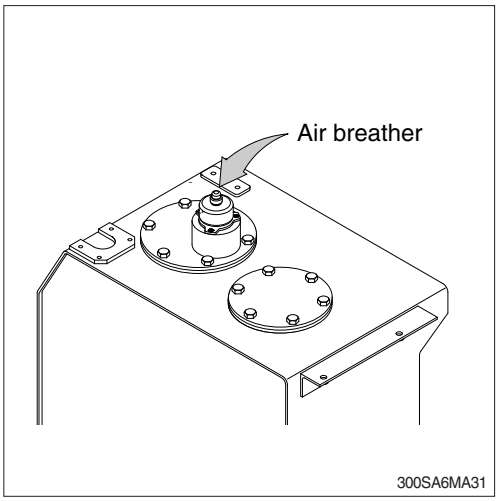
(1) Stop the engine to the position of level check.

(2) Relieve the pressure in the tank by pushing the top of the air breather.

(3) Remove the breather on the top of oil tank and fill the oil to the specified level.

(4) Start engine after filling and operate the work equipment several times.

(5) Check the oil level at the level check position after engine stops.



40) LUBRICATE PIN AND BUSHING

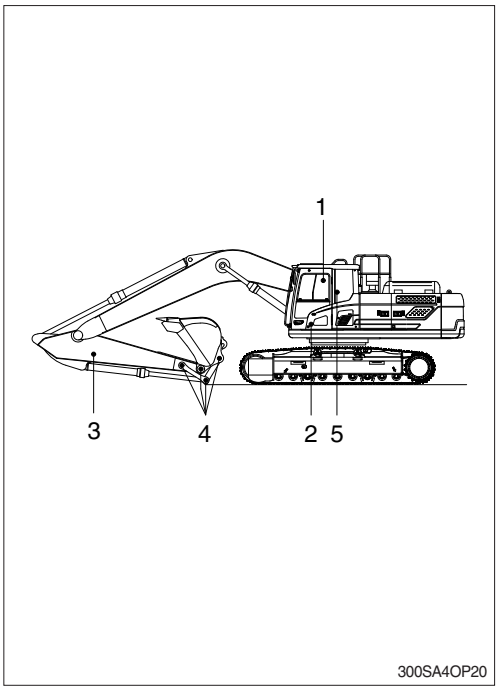
(1) Lubricate to each pin of working device

Lubricate the grease to the grease nipple according to the lubricating interval.

No.	Description	Qty
1	Lubrication manifold at boom	5
2	Boom cylinder pin (head)	2
3	Lubrication manifold at arm	3
4	Bucket cylinder pin (rod)	1
	Bucket link (control rod)	2
	Arm and bucket connection pin	1
	Bucket and control rod connection pin	1
	Arm and control link connection pin	1
5	Boom rear bearing center ★	1

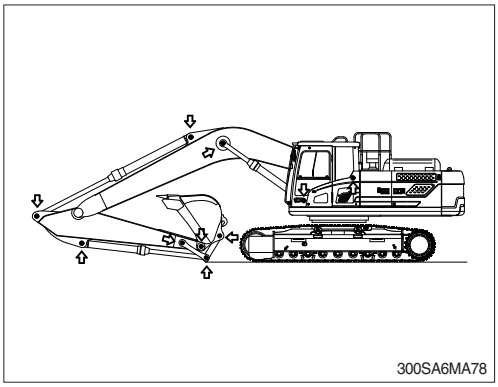
※ Shorten lubricating interval when working in water or dusty places.

★ Not required : If necessary, lubricate the grease.



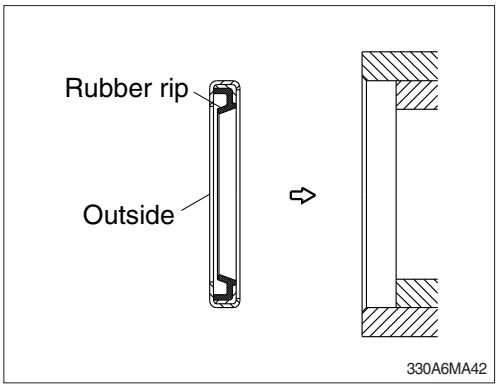
(2) Dust seals are mounted on the rotating part of working device to extend the lubricating interval.

※ Mount the lip to be faced outside when replace the dust seal.



※ If it is assembled in wrong direction, it will cause fast wear of pin and bushing, and create noise and vibration during operation.

※ Assemble the seal same direction with picture and use with plastic hammer when replace.

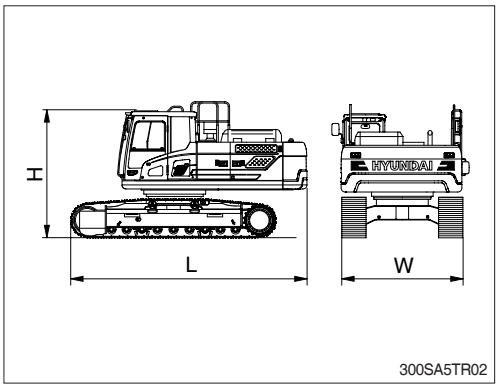


2) HX300LT3 LR

(1) Base machine

Mark	Description	Unit	Specification
L	Length	mm (ft-in)	5740 (18' 10")
H	Height	mm (ft-in)	3020 (9' 11")
W	Width	mm (ft-in)	3400 (11' 2")
Wt	Weight	kg (lb)	26934 (59380)

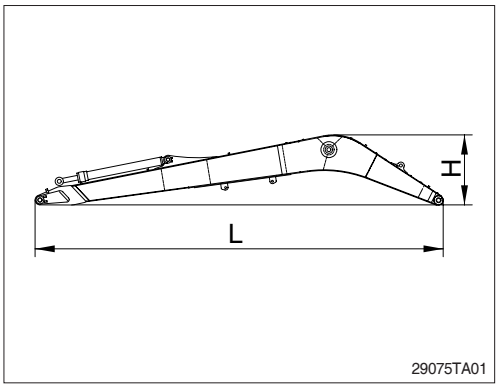
※ With 800 mm (32") triple grouser shoes and 7000 kg (15430 lb) counterweight.



(2) Boom assembly

Mark	Description	Unit	Specification
L	Length	mm (ft-in)	10410 (34' 2")
H	Height	mm (ft-in)	1675 (5' 6")
W	Width	mm (ft-in)	900 (3' 1")
Wt	Weight	kg (lb)	3420 (7540)

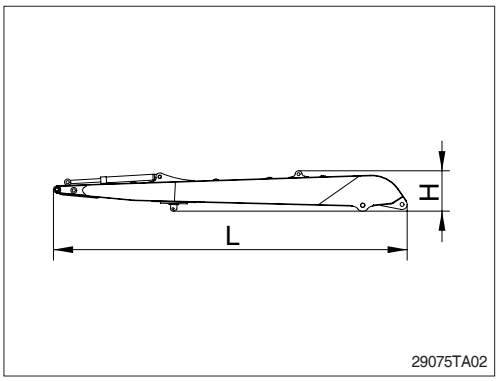
※ 10.2 m (33' 6") boom with arm cylinder (included piping and pins).



(3) Arm assembly

Mark	Description	Unit	Specification
L	Length	mm (ft-in)	9190 (29' 7")
H	Height	mm (ft-in)	870 (2' 10")
W	Width	mm (ft-in)	480 (1' 7")
Wt	Weight	kg (lb)	1690 (3730)

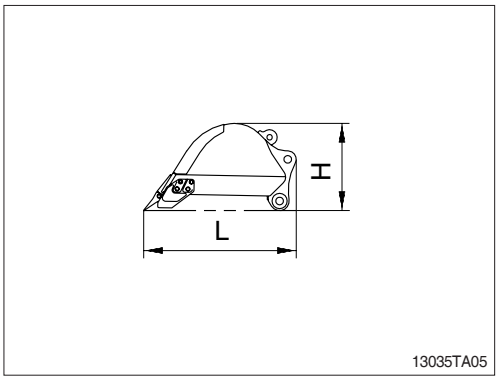
※ 7.85 m (25' 9") arm with bucket cylinder (included linkage and pins).



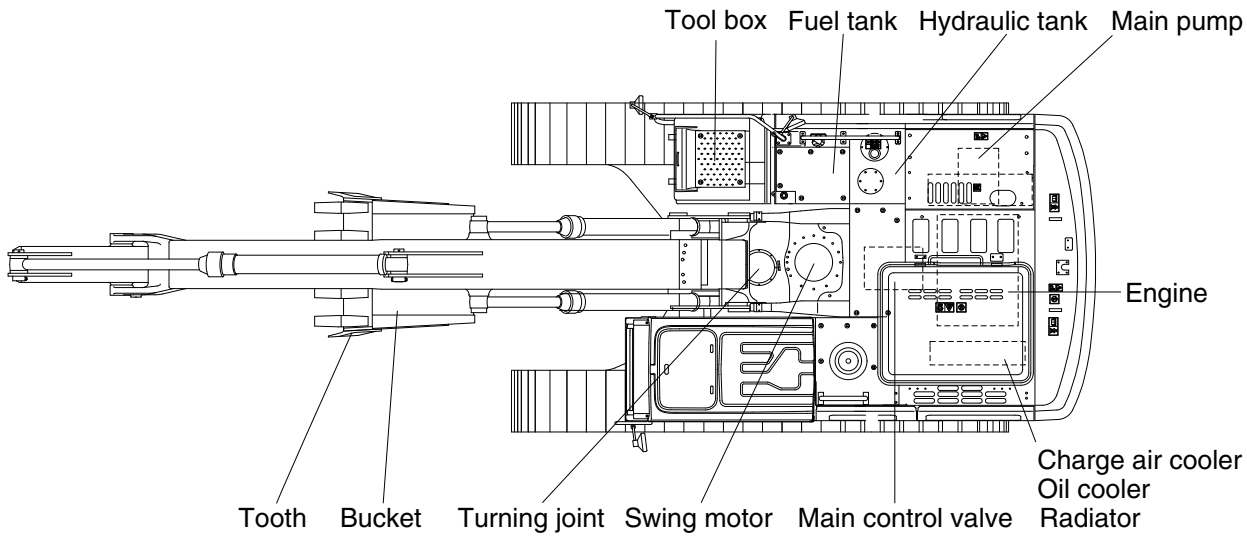
(4) Bucket assembly

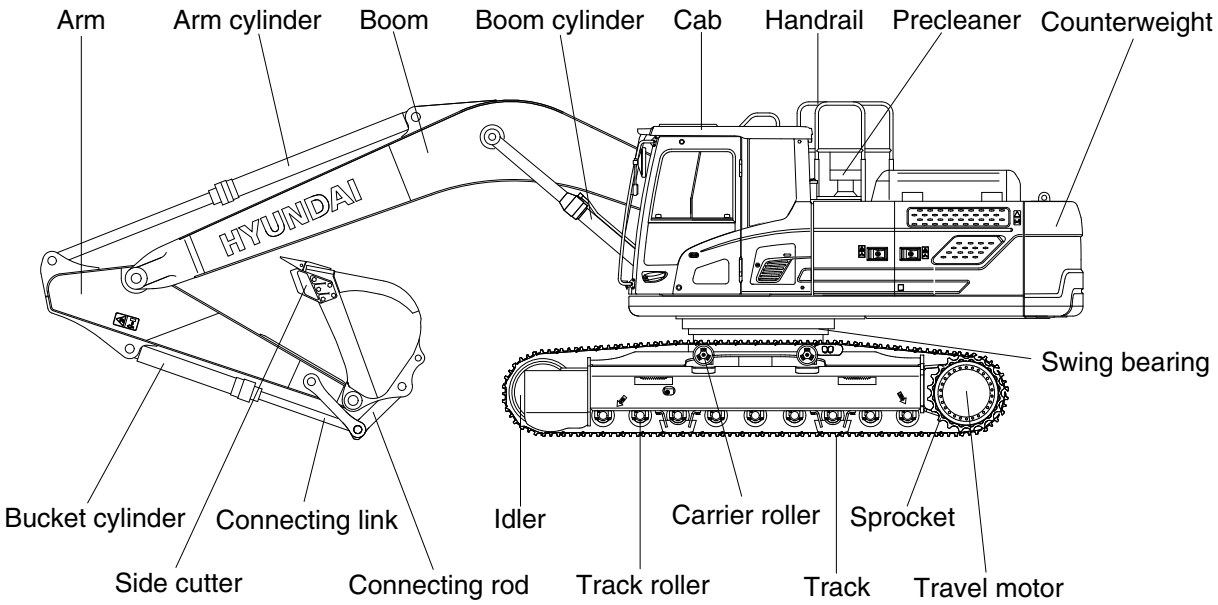
Mark	Description	Unit	Specification
L	Length	mm (ft-in)	1400 (4' 7")
H	Height	mm (ft-in)	820 (2' 8")
W	Width	mm (ft-in)	1035 (3' 5")
Wt	Weight	kg (lb)	460 (1010)

※ 0.52 m^3 (0.68 yd^3) SAE heaped bucket (included tooth and side cutters).



1. MAJOR COMPONENT

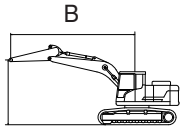




300SA2SP01

Model	Type	Boom	Arm	Counterweight	Shoe	Wheel	Dozer		Outrigger	
HX300LT3	MONO BOOM	Length [mm]	Length [mm]	weight [kg]	width [mm]	width [mm]	Front	Rear	Front	Rear
		6250	2100	5200	600	-	-	-	-	-

· : Rating over-front · : Rating over-side or 360 degree



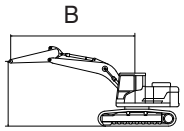
Lift-point height (A)		Lift-point radius (B)								At max. reach		
		3.0 m (9.8 ft)		4.5 m (14.8 ft)		6.0 m (19.7 ft)		7.5 m (24.6 ft)		Capacity		Reach
7.5 m (24.6 ft)	kg					*7640	*7640			*7850	7420	6.40
	lb					*16840	*16840			*17310	16360	(21.0)
6.0 m (19.7 ft)	kg					*7870	*7870			*7740	5740	7.44
	lb					*17350	*17350			*17060	12650	(24.4)
4.5 m (14.8 ft)	kg					*8900	7830	*7880	5570	7730	4940	8.06
	lb					*19620	17260	*17370	12280	17040	10890	(26.5)
3.0 m (9.8 ft)	kg					*10210	7410	*8440	5390	7170	4560	8.37
	lb					*22510	16340	*18610	11880	15810	10050	(27.5)
1.5 m (4.9 ft)	kg					*11280	7090	8330	5220	7040	4450	8.40
	lb					*24870	15630	18360	11510	15520	9810	(27.6)
0.0 m (0.0 ft)	kg					11460	6920	8220	5130	7310	4600	8.15
	lb					25260	15260	18120	11310	16120	10140	(26.8)
-1.5 m (-4.9 ft)	kg			*15420	10540	11450	6910	8250	5150	8110	5080	7.60
	lb			*34000	23240	25240	15230	18190	11350	17880	11200	(24.9)
-3.0 m (-9.8 ft)	kg	*18290	*18290	*13920	10740	*10520	7060			*8990	6200	6.66
	lb	*40320	*40320	*30690	23680	*23190	15560			*19820	13670	(21.9)
-4.5 m (-14.8 ft)	kg			*10490	*10490					*8680	*8680	5.12
	lb			*23130	*23130					*19140	*19140	(16.8)

Note 1. Lifting capacity are based on ISO 10567.
2. Lifting capacity of the HX series does not exceed 75% of tipping load with the machine on firm, level ground or 87% of full hydraulic capacity.
3. The Lift-point is bucket pivot mounting pin on the arm (without bucket mass).
4. *Indicates load limited by hydraulic capacity.

※ Lifting capacities are based upon a standard machine conditions.
Lifting capacities will vary with different work tools, ground conditions and attachments.
The difference between the weight of a work tool attachment must be subtracted.
Consult your HD Hyundai Construction Equipment dealer regarding the lifting capacities for specific work tools and attachments.
Failure to comply to the rated load can cause possible personal injury or property damage.
Make adjustments to the rated load as necessory for non-standard configurations.

Model	Type	Boom	Arm	Counterweight	Shoe	Wheel	Dozer		Outrigger	
HX300LT3 HW	LONG REACH	Length [mm]	Length [mm]	weight [kg]	width [mm]	width [mm]	Front	Rear	Front	Rear
		10200	7850	7000	800	-	-	-	-	-

· : Rating over-front · : Rating over-side or 360 degree



Lift-point height (A)		Lift-point radius (B)																						At max. reach		
		1.5 m (4.9 ft)		3.0 m (9.8 ft)		4.5 m (14.8 ft)		6.0 m (19.7 ft)		7.5 m (24.6 ft)		9.0 m (29.5 ft)		10.5 m (34.4 ft)		12.0 m (39.4 ft)		13.5 m (44.3 ft)		15.0 m (49.2 ft)		16.5 m (54.1 ft)		Capacity		Reach
																										m (ft)
13.5 m	kg																							*790	*790	13.22
44.3 ft	lb																							*1740	*1740	(43.4)
12.0 m	kg																	*1150	*1150					*740	*740	14.36
39.4 ft	lb																	*2540	*2540					*1630	*1630	(47.1)
10.5 m	kg																	*1400	*1400	*880	*880			*710	*710	15.26
34.4 ft	lb																	*3090	*3090	*1940	*1940			*1570	*1570	(50.1)
9.0 m	kg																	*1580	*1580	*1220	*1220			*700	*700	15.97
29.5 ft	lb																	*3480	*3480	*2690	*2690			*1540	*1540	(52.4)
7.5 m	kg																	*1750	*1750	*1450	*1450	*720	*720	*700	*700	16.52
24.6 ft	lb																	*3860	*3860	*3200	*3200	*1590	*1590	*1540	*1540	(54.2)
6.0 m	kg															*2140	*2140	*1970	*1970	*1650	*1650	*1010	*1010	*710	*710	16.91
19.7 ft	lb															*4720	*4720	*4340	*4340	*3640	*3640	*2230	*2230	*1570	*1570	(55.5)
4.5 m	kg													*2780	*2780	*2530	*2530	*2240	*2240	*1860	*1860	*1220	*1220	*740	*740	17.16
14.8 ft	lb													*6130	*6130	*5580	*5580	*4940	*4940	*4100	*4100	*2690	*2690	*1630	*1630	(56.3)
3.0 m	kg					*8610	*8610	*6030	*6030	*4750	*4750	*4000	*4000	*3520	*3520	*3120	*3120	*2610	*2610	*2090	*2090	*1370	*1370	*770	*770	17.28
9.8 ft	lb					*18980	*18980	*13290	*13290	*10470	*10470	*8820	*8820	*7760	*7760	*6880	*6880	*5750	*5750	*4610	*4610	*3020	*3020	*1700	*1700	(56.7)
1.5 m	kg					*3650	*3650	*7380	*7380	*5610	*5610	*4590	*4590	*3930	*3930	*3490	*3490	*3080	3010	*2330	*2330	*1460	*1460	*820	*820	17.26
4.9 ft	lb					*8050	*8050	*16270	*16270	*12370	*12370	*10120	*10120	*8660	*8660	*7690	*7690	*6790	6640	*5140	*5140	*3220	*3220	*1810	*1810	(56.6)
0.0 m	kg			*1380	*1380	*3010	*3010	*6720	*6720	*6350	*6350	*5110	*5110	*4320	4180	*3780	3450	*3390	2890	*2550	2440	*1470	*1470	*880	*880	17.11
0.0 ft	lb			*3040	*3040	*6640	*6640	*14820	*14820	*14000	*14000	*11270	*11270	*9520	9220	*8330	7610	*7470	6370	*5620	5380	*3240	*3240	*1940	*1940	(56.1)
-1.5 m	kg	*1470	*1470	*1950	*1950	*3210	*3210	*5850	*5850	*6910	6220	*5550	4900	*4660	3980	*4030	3310	*3590	2780	*2700	2370	*1330	*1330	*970	*970	16.83
-4.9 ft	lb	*3240	*3240	*4300	*4300	*7080	*7080	*12900	*12900	*15230	13710	*12240	10800	*10270	8770	*8880	7300	*7910	6130	*5950	5220	*2930	*2930	*2140	*2140	(55.2)
-3.0 m	kg	*2110	*2110	*2600	*2600	*3720	*3720	*5950	*5950	*7310	6000	*5880	4720	*4920	3840	*4240	3200	*3740	2710	*2670	2320			*1080	*1080	16.40
-9.8 ft	lb	*4650	*4650	*5730	*5730	*8200	*8200	*13120	*13120	*16120	13230	*12960	10410	*10850	8470	*9350	7050	*8250	5970	*5890	5110			*2380	*2380	(53.8)
-4.5 m	kg	*2770	*2770	*3310	*3310	*4400	*4400	*6510	*6510	*7530	5890	*6100	4610	*5100	3750	4370	3130	3720	2660	*2350	2290			*1240	*1240	15.82
-14.8 ft	lb	*6110	*6110	*7300	*7300	*9700	*9700	*14350	*14350	*16600	12990	*13450	10160	*11240	8270	9630	6900	8200	5860	*5180	5050			*2730	*2730	(51.9)
-6.0 m	kg	*3480	*3480	*4090	*4090	*5240	*5240	*7400	*7400	*7580	5870	*6180	4570	*5190	3720	4340	3100	3700	2650	*1550	*1550			*1450	*1450	15.06
-19.7 ft	lb	*7670	*7670	*9020	*9020	*11550	*11550	*16310	*16310	*16710	12940	*13620	10080	*11440	8200	9570	6830	8160	5840	*3420	*3420			*3200	*3200	(49.4)
-7.5 m	kg	*4240	*4240	*4970	*4970	*6260	*6260	*8660	8140	*7470	5910	*6120	4600	*5140	3730	4360	3120	*3000	2680					*1770	*1770	14.10
-24.6 ft	lb	*9350	*9350	*10960	*10960	*13800	*13800	*19090	17950	*16470	13030	*13490	10140	*11330	8220	9610	6880	*6610	5910					*3900	*3900	(46.3)
-9.0 m	kg	*5100	*5100	*5980	*5980	*7530	*7530	*8940	8320	*7150	6020	*5890	4680	*4940	3800	*4160	3200							*2300	*2300	12.90
-29.5 ft	lb	*11240	*11240	*13180	*13180	*16600	*16600	*19710	18340	*15760	13270	*12990	10320	*10890	8380	*9170	7050							*5070	*5070	(42.3)
-10.5 m	kg	*6080	*6080	*7210	*7210	*9200	*9200	*8150	*8150	*6560	6220	*5390	4840	*4450	3950									*3320	*3320	11.37
-34.4 ft	lb	*13400	*13400	*15900	*15900	*20280	*20280	*17970	*17970	*14460	13710	*11880	10670	*9810	8710									*7320	*7320	(37.3)
-12.0 m	kg			*8780	*8780	*8810	*8810	*6870	*6870	*5530	*5530	*4430	*4430											*4180	*4180	9.35
-39.4 ft	lb			*19360	*19360	*19420	*19420	*15150	*15150	*12190	*12190	*9770	*9770											*9220	*9220	(30.7)

Note 1. Lifting capacity are based on ISO 10567.

2. Lifting capacity of the HX series does not exceed 75% of tipping load with the machine on firm, level ground or 87% of full hydraulic capacity.

3. The Lift-point is bucket pivot mounting pin on the arm (without bucket mass).

4. *Indicates load limited by hydraulic capacity.

※ Lifting capacities are based upon a standard machine conditions.
Lifting capacities will vary with different work tools, ground conditions and attachments.
The difference between the weight of a work tool attachment must be subtracted.
Consult your HD Hyundai Construction Equipment dealer regarding the lifting capacities for specific work tools and attachments.
Failure to comply to the rated load can cause possible personal injury or property damage.
Make adjustments to the rated load as necessory for non-standard configurations.

3. MAINTENANCE

1) MAINTENANCE OF HYDRAULIC OIL AND FILTER

(1) As machine with an hydraulic breaker provides the hydraulic oil becomes severely contaminated.

(2) So, unless frequently maintained, the machine may easily go out of order.

(3) Inspect and maintain hydraulic oil and 3 kinds of filter elements in particular, in order to prolong machine life.

2) RELEASE THE PRESSURE IN BREAKER CIRCUIT

When breaker operating is finished, stop engine and push pedal or switch for breaker to release pressure in breaker circuit.

If pressure still remains, the lifetime of the diaphragm in the accumulator will be shortened.

3) Be careful to prevent contamination by dust, sand and etc.

If such pollution become mixed into the oil, the pump moving parts will wear abnormally, shorten lifetime and become damaged.

4) When operating breaker, bolts and nuts of main equipment may be loosened by vibration. So, it must be inspected periodically.

Service interval unit : hours

Attachment	Operating rate	Hydraulic oil	Filter element
Breaker	100 %	600★1	200
		1000★2	

★1 : Conventional hydraulic oil

★2 : HD Hyundai Construction Equipment genuine long life hydraulic oil

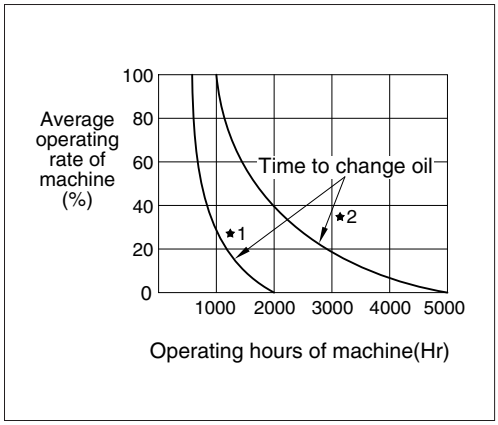
● **Replace following filter same time**

· Hydraulic return filter : 1 EA

· Pilot line filter : 1 EA

· Drain filter cartridge : 1 EA

Hyd oil change guide for hydraulic breaker



★1 : Conventional hydraulic oil

★2 : HD Hyundai Construction Equipment genuine long life hydraulic oil